



Y-12 BULLETIN

A NEWSPAPER BY AND FOR EMPLOYEES OF CARBIDE AND CARBON CHEMICALS CORPORATION IN Y-12



Volume 2, No. 30

OAK RIDGE, TENNESSEE

Tuesday, July 27, 1948



Y-12 Photos By Vince Moore

HOW THESE Y-12 GIRLS GET AROUND! FROM THE SUN-KISSED beach at Daytona to the fog-shrouded peaks of the Smokies come reports of enjoyable vacations. Now, pictured above, three Y-12 employees are shown enjoying a ride in a quaint old Canadian carriage to the top of picturesque Mt. Royale at Montreal, Canada. They are, left to right, Lillian Howard and Naomi Smelcer, both of Dept. A12W, and Georgia Moore, Dept. A12A. While on their trip they spent six days sightseeing in New York City.

Reserve Officers' Research Group Will Meet Again

A second meeting for reserve officers who might be interested in belonging to the research and development group being sponsored by the Department of the Army has been scheduled at 7:30 p.m., Wednesday, July 28, in Room 13 of the Oak Ridge Institute Building. All Y-12 employees who are reserve officers and who are engaged in research and development work are urged to attend this session.

Maj. H. S. Whitehouse, of the Knoxville Military District, will discuss the advantages offered by the new organization, particularly the monetary benefits to be derived from membership.

Army Is Backing Movement

Formation of this group comes from the efforts on the part of the Army to organize a research and development section of the Organized Reserve Corps. Its chief purpose is to provide a program of participation for reservists who are professionally engaged in research and development activities to insure their highest value of utilization in peace or war. The Logistics Division, General Staff of the U. S. Army, directs the organization's functions. To form such a unit a minimum of 20 qualified applicants is necessary.

Members of the following service groups that meet the minimum qualifications of having a bachelor's degree from an accredited college or university and who are engaged in either research or development activities are eligible for membership in the organization:

1. Reserve officers (active or inactive).
2. AUS officers.
3. Enlisted men of the first three grades (capable of qualifying for a commission).

May Waive Qualification

However, the minimum qualification may be waived if an applicant's professional background and experience so warrant.

The program of a research and development group is that of training which encompasses research and development problems or projects of interest to the Army. Such groups can formulate their own programs or can act as staff to the Logistics Division. They are also allowed to receive classified material from the chiefs of technical services.

Persons desiring further information about the group should contact W. Y. Gissell, telephone 6309, or J. W. Gost, telephone 6192.

Reece Boys 'Off To Races' In Chattanooga

(Pictures On Page Three)

Its off to the races for Richard, 14, and George, 13, sons of John Reece, Dept. H12D, both entered in the Chattanooga Soap Box Derby on July 28-29.

Richard Won Two Trophies

Y-12ers and Oak Ridgers well remember these two young "Barney Oldfields" from last year's Oak Ridge Orange Crate Derby when Richard won two trophies, one for the Class A event and the other as the final winner of the Derby. He also entered the Chattanooga Derby last year but this will be the first Soap Box Derby for young George.

Richard remodeled his speedy white racer from last year and named it the "Ridge Runner" using a mountaineer drawn on the hood as its symbol.

Jaycees Backing George

George constructed his sleek blue racer this year and it will be sponsored by the Oak Ridge Junior Chamber of Commerce.

Both cars are 80 inches long with solid regulation Soap Box Derby tires and ball bearing wheels. They have single drag, foot pedal operated brakes.

The flashy racers were taken to Chattanooga last week and left for the qualifying inspection. An estimated 400 entries are expected from the Southeastern part of the state.

Orange Crate Event Cancelled

The Oak Ridge Orange Crate Derby was cancelled this year when only three entries were received so the Jaycees entered the three contestants in the Chattanooga Derby.

"Atomic Gold" Scheme Sends Quartet To Jail

Dr. Harold R. Rector, El Reno, Okla., chiropractor and self-styled nuclear physicist, and others were charged with conspiring to defraud Northwest investors of more than \$200,000 in a scheme to recover gold from black sand by a secret atomic process.

The chiropractor was sentenced in Spokane to a three-year probationary period for his part in the "atomic gold" plot.

Wescott B. Clarke, F. E. Nemecek and B. X. Dawson, all of Los Angeles, were sentenced to three months in a federal penitentiary, five years and 18 months respectively.

Y-12 Employees Invited To See Isotope Exhibit

Y-12 employees are cordially invited to inspect the radioisotope laboratories of the Oak Ridge Institute of Nuclear Studies at an open house to be held in the Institute Building on Wednesday and Thursday, July 28 and 29. The laboratories will be open from 10 a. m. to 5 p. m. and from 7 a. m. to 10 p. m. on both days.

Scientists Study Techniques

The laboratories are being used this summer in the training of almost 100 scientists from throughout the country in a series of three courses in the techniques of using radioisotopes in research.

The staff of the radioisotope school will be on duty during the open house and will demonstrate various ways in which radioisotopes are utilized in research. The laboratories were designed by specialists in the radioisotope and engineering fields at Oak Ridge National Laboratories and are believed to be the most modern available.

Exhibit To Be Displayed

The exhibit prepared by the Isotope Division of the Atomic Energy Commission and which has been on display at various scientific and technical meetings will be shown at the Institute in connection with the open house sessions.

The open house is being held between the first and second of the three courses to be offered by the Institute this summer. The second course begins on August 2 and is open only to staff members from universities cooperating with the Division of Biology and Medicine of the Atomic Energy Commission in a nationwide fellowship program.

The Oak Ridge Institute Building is located on Administration Road just South of the AEC Administration Building.

Legion Planning \$50,000 Home In Oak Ridge

Atomic City Post, No. 199, American Legion, is contemplating construction of a new home to cost approximately \$50,000, it has been announced by C. E. Boone, post commander. The site for the new Legion quarters has not yet been determined, Commander Boone said last week.

Plans for the new home probably will be the chief topic of discussion at the next meeting of the post at 8 o'clock Thursday night, August 5. Past Commander Miller McDonald is chairman of the building planning committee and is being assisted by Frank Wilson and Eugene Joyce, also former commanders of the post.

Tentative plans for the new Legion post home include a swimming pool in the basement for the use of members and the children of Oak Ridge. Swimming facilities for Oak Ridge youngsters is a part of the juvenile program instituted by the Legion this year with James Wellman named as chairman of a standing committee in charge of the work.

TVA TO BUILD BRIDGE

The Tennessee Valley Authority said that it was ready to begin construction, when a contract is executed by TVA, Federal Works Agency, and the state, of a \$2,273,000 bridge across Chickamauga Dam near Chattanooga.

'Products And Processes' Booklet Tells Union Carbide Activities

Producing better materials for the use of science and industry and the benefit of mankind is the work of Union Carbide and Carbon Corp., of which Carbide and Carbon Chemicals Corp. is a subsidiary. In a booklet that will be distributed during the week of August 1 to employees in all three Carbide plants in Oak Ridge, these products or materials are described with a brief summary of how they are used.

Counterpart Of "About Carbide"

The booklet, entitled "Products and Processes" is a counterpart to the "About Carbide" booklet distributed to employees several weeks ago that told about Carbide, its plants and locations, its people and the work they do.

"Products and Processes" is concerned with the natural resources—ores from the earth, petroleum, natural gas, limestone, salt, cotton, coal, and even the air—that are taken into Union Carbide plants and from which are created many hundreds of products ranging all the way from the lightest of gases to the heaviest of metals.

Some Products Lose Identity

Many of these products are consumed by other industries and lose their identity in further manufacturing and processing. Some of the products, however, find their way into American homelife in the form of automobile anti-freezes, batteries and various plastic products.

The interestingly illustrated booklet describes these and the other products made by the 21 principal units of Union Carbide in the United States and Canada.

Murray To Conduct Next Two Research Seminar Sessions

R. L. Murray, of the Beta Development Division in Y-12, will conduct the next two sessions of the seminar on research techniques being conducted for scientific and technical personnel in the plant. His topic will be Differential Equations and how they may be applied to Y-12 problems.

The first of Murray's talks will be made at the seminar session to be held from 3 p. m. to 4:20 p. m. in the west end of the Y-12 cafeteria Wednesday afternoon, July 28. The second will be given at the same time and place Wednesday, August 11.

RESERVES EXEMPT

Members of organized reserve units which require at least 35 scheduled drills or training periods a year will be exempt from the peacetime draft according to Secretary of Defense James Forrestal.

Refining Again Tops Attendance Table

Dept. B12H, Refining, is securely entrenched in the No. 1 slot in the Major League for the third week in a row in departmental attendance standings, scoring an absentee percentage of .7 per cent for the week ending July 18. This was a jump of .5 per cent over its report for the preceding week.

Plant Absenteeism Rises

The plant average for this same period was 2.6 per cent. This mark was a .3 per cent increase over the preceding week.

Dept. M12P, Product Chemical, soared up from ninth place for the preceding week to occupy the No. 2 berth in the Major League for the week ending July 18. Third place went to Dept. H12L, Isotope Development, with a report of 1.2 per cent. It rose from fourth place from the preceding week.

The biggest drop in the Major League was made by Dept. H12E, Process Development, from second place for the preceding week to eighth place for the period ending July 18.

Seven Departments Perfect

Seven departments in the Minor (Continued on Page 4)

'Oh, My Aching Back' Feeling Can Be Avoided If Proper Lifting Methods Are Used; Spine Should Be Eased Of Strain

That "Oh, My Aching Back" feeling that frequently follows an injury resulting from improper lifting methods easily can be avoided by observance of simple rules for properly lifting and carrying heavy or bulky objects. Practically every employee in Y-12 has occasion to do some lifting and carrying at times—even stenographers sometimes finding it necessary to handle weighty books or files or to move typewriters or other pieces of office machinery.

Proper Method Shown

The Photographic Section this month has prepared a photoposter on the proper methods of lifting and carrying to avoid a back strain, hernias or other injury that might

result from improper lifting methods. These posters have been distributed for attachment to the safety calendars throughout the plant.

The Safety Department points out that the proper method of lifting and carrying is by using the leg and arm muscles and not the muscles of the back. To prevent losing balance and to make the burden on the leg and arm muscles as easy as possible, the load should be held close to the body. Even lifting a comparatively light load can result in strain if it is too bulky to handle easily.

Hold Body Erect as Possible

When lifting, the employee assigned to the job should squat down

beside the object to be lifted, bending the knees but keeping the back as straight as possible. Then the load should be lifted slowly and steadily, avoiding any jerks in movement. While carrying the load the body should be held as erect as possible, again to avoid placing too much strain on the back muscles.

Backs are constructed to stand a "compression" load. That is, the spine, if squeezed from end to end, will hold heavy weights. However, when a person bends over to lift a load from the floor the spine is like a boom with its muscles acting as a cable to keep it straight. Therefore, lifting with back muscles

(Continued on Page 4)

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GEORGE W. DOBBS . . . Editor
R. A. BURGIN, JR. . . Associate Editor
OFFICE
North Portal, Bldg. 9701-1
Telephone 7-8252

Camera Club Plans Election, Changes

Members of the Carbide Camera Club will discuss plans for election of officers for 1948 when the club meets at 7:30 p. m., Tuesday, August 10, in the club headquarters, Y-12 East Portal building, according to Foster F. Calloway, president of the club.

It has been proposed that the club members submit nominations for office holders at the November meeting and hold the annual election at the December session, the new officers taking over in January.

Honorable Mention Awards

The club has voted to make a first and second honorable mention award in addition to the first, second and third prizes in the monthly competitions. The honorable mention award winners would not participate in the monthly merchandising prizes given contest winners. However, the winner of the first honorable mention award will receive one point toward the annual award of the club and the second honorable mention will receive a designation of merit.

Another change in procedure by the club will be to omit the name of the print or slide owner from all contest entries. The owner's name will simply be placed on the package containing the entries and the program chairman will place numbers on the entries for identification. This step is expected to make work of the judges easier in the contests.

Print Contest Scheduled

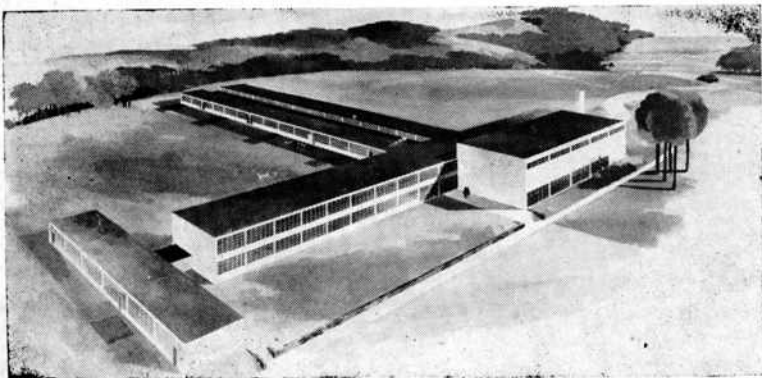
A black and white print contest on the subject of sports will be held at the August meeting and an Eastman Kodak Co. lecture on print analysis will be read by a club member.

Shower Honors Mrs. H. Conduff

A bridal shower was given July 7 at Chester Hall, honoring Mrs. Herbert Conduff, formerly of Y-12 and now with the Oak Ridge National Laboratories. Hostesses were Mary Ellen Veasey and Jean Emge. The bride, the former Miss Carolyn Breece, was married June 19 to Herbert Conduff, also formerly of Y-12.

The 12 guests present included Ruby Payne, Margaret Sullivan, Naomi Walls, Dove Emge, Mrs. Paul Petretzky, Mrs. Ted Higgins, Lena Truett, Dottie Eaves, Christine Chandler, Irene Tarbell, Martha McCaslin and Mabel Tyer.

Telephone service was inaugurated between Washington, D. C., and Baltimore, Md., July 25, 1883.



THE ARCHITECT'S DRAWING OF A NEW ELEMENTARY school to be built in Oak Ridge is shown above. John A. Johnson and Sons, of Oak Ridge, was awarded the construction contract on a bid of \$969,791.88. The new school will be situated in an area bounded by Robertsville Road, Iroquois Road and Jefferson Ave. The new school, which will accommodate 425 pupils, will aid in relieving overcrowded conditions in Oak Ridge's elementary schools.

Strictly Confidential..

Trasda Joiner, Dept. A16J, and her husband, Jimmie, have returned from London and Niagara Falls, Canada, where they report having spent an enjoyable vacation—no time for fishing, however. They still say they prefer the lakes of Tennessee. . . . Merlie Epting spent the past week end in Chattanooga with Mrs. Jo Potts, former Y-12 employee.

If you hear a knocking on the door don't be surprised if Ed Wallace is standing on the welcome mat. Wallace, a former Y-12 employee, is now with Eastman Kodak Co. in Rochester, N. Y. and when his vacation came up this year he thought of dear old Oak Ridge and the many friends he left behind whom he visited last week. Accompanying Wallace are his wife and daughter.

Sarah Keith, Dept. A12M, is resting this week.

Dept. B12C wishes a speedy recovery to Billie Boyd, who is still on the sick list. . . . R. S. Toomey is back on the job after a week's rest.

J. M. Enocks, Dept. A14N, returned to work Monday after a week vacation. . . . J. C. Ezell, Dept. A14N, with Al Threadgill, former Y-12 employee, motored up to the trout country of Tellico Plains, Tenn., recently and while there had the misfortune of being caught in a cloudburst and returned to Oak Ridge with only one rainbow trout just over limit size. By the way, Ezell hopes to have a new fisherman in the family as soon as that new son can hold a fishing pole. . . . William Weatherford motored to Kentucky over the week end and will remain for a two week vacation.

R. H. Sharpe, area foreman of Dept. A12A, is welcomed back to night shift after an extended illness.

Bill Burns, Dept. H12L, really was ambitious during a recent vacation spent at his home in Georgia. After helping harvest 700 watermelons Bill helped pick 150 bushels of tomatoes. L. O. Gilpatrick motored to Myrtle Beach, S. C., and on down the coast to Daytona Beach, Fla., and returned through Atlanta and back home during a recent vacation. . . . Boodie Garrett spent a recent week end visiting relatives in Spartanburg, S. C.

Marie Cardwell, Dept. A12P, and her husband spent the week end at Cumberland Falls, Ky. . . . Maude Partin has as her guests friends from Tampa, Fla. . . . Alene Adams spent Saturday shopping in Sevierville. . . . Ruth Law is spending her vacation at home in Maryville.

Leora Doss, Dept. B12H, is back on the job after a week vacation spent with relatives in Lafayette, Tenn. . . . John Stewart spent a quiet vacation in Oak Ridge last week. . . . Zola Marlar spent a recent week end at her home in Burnsville, Miss.

W. C. Davis returned to work after a week vacation spent in Johnson City, Tenn. . . . G. H. Booth is in Nashville on a two week vacation. . . . S. A. Copeland and Georgia Rader are also on vacation. . . . Edith Cruse spent a week vacation resting at her home in Knoxville. . . . Clem Jones is spending his vacation in Lansing, Tenn. . . . The department welcomes Pauline Lovely into their group.

Avo Hammond, Dept. A12L, spent a recent week end in Jamestown, Tenn. . . . Pat Hamrick and his family motored through the Smokies over a recent week end. Joe White and his family are on the West Coast of Florida taking in the sun rays during their vacation.

Bill Hoover, Dept. H12D, spent a recent week end at his home in Bell Buckle, Tenn. . . . Paul Petretzky is loafing in Oak Ridge during his vacation this week. . . . David Crouse is welcomed into Chemical Development.

Mary Lou Pate, Dept. A12A, is spending a two week vacation visiting in West Virginia.

Flossie McGhee, Dept. A19N, is vacationing with relatives in Elk Valley and Middlesboro, Ky. . . . C. A. McAlister has returned from a week vacation spent in Atlanta.

M. B. Hilton, Dept. A13W, is back on the job after a vacation spent in Ohio and Knoxville. . . . W. R. Coleman spent a recent vacation on the West Coast of Florida. . . .

Returned vacationers in Dept. A12W are Frank Fuis who spent a week in Missouri. . . . Ed Merritt spent two weeks at Daytona Beach, Fla. . . . Bob Morris spent a week just taking life easy in Knoxville. . . . Charles Holloway spent a week at his home in Jackson, Tenn. . . . G. J. Angele has returned from Baltimore, Md., where he was called because of the illness and death of his father. The department extends sympathy. . . . Sympathy is extended to C. E. Gilcrease whose father-in-law died in Paris, Tenn. . . .

Dept. B12C sends get well wishes to T. G. Wise and Emma Henry, who are still on the sick list. . . . E. E. Duncan intends to divide his two week vacation between Oak Ridge and West Tennessee.

Employees resting in Dept. A12G are M. L. Sullivan, C. H. Anderson and G. J. Cooley.

Dept. A14N welcomes the following employees on the job: A. G. Kenerly, M. L. Stephens, R. L. Sampsel, Floyd McGhee, H. E. Jefferies, J. D. Sizemore, W. G. Collins, J. O. Drake and D. T. McCalman. . . . H. P. McGaughy and his family were at Virginia Beach, Va. last week vacationing. . . . E. H. Kelley spent a recent vacation at Miami Beach, Fla. . . . S. B. Ward spent a recent vacation in Spartanburg, S. C. . . . C. W. Kidd spent his vacation in Oak Ridge and also motored through the Smokies. . . . That Big Texan, Frank Darby, really showed these Tennesseans a new method of catching fish when he lassoed a bluegill at Eagle Lodge, Tenn. recently. Of course Darby swears it was an accident—but we wonder.

Dept. B12L extends sympathy to Daisy Brogan Ward, whose grandfather died at Middlesboro, Ky., July 14. . . . Chick Burnette returned to work after a week of rest in Knoxville. . . . Candy Johnson spent a recent week end in Huntsville, Ala. . . . Catherine Love, Dept. B12L and her husband, Leon, Dept. H12L, had as recent week end guests, Mr. and Mrs. J. C. Holland, of Crystal Spring, Miss. . . . Mary Nell Rawson spent a recent vacation at her home in Meridian, Miss. . . . Earlene Banic, Dept. B12L, and her husband, George, Dept. H12L, had as recent week end guests, Mr. and Mrs. G. Y. Styles and daughter, Laura, of Travelers Rest, N. C. . . . H. D. Whitehead was in Methuen, Mass., vacationing last week.

J. J. Goodman, Dept. A12R, spent a week vacation in Asheville, N. C., with his family. . . . S. J. Myers is vacationing in South Carolina. . . . Mayme Watt was resting in Knoxville last week. . . . The department wishes a speedy recovery to Lavonia Priget, who is ill.

Polly Laurence, Dept. M12P, spent a recent vacation in Louisiana, Mo. . . . Garnette Adams and Nina Lowry spent a recent week end shopping in Nashville. . . . G. M. Kirtland, Dept. M13P, is vacationing in Cullman, Ala., this week.

Howard P. Doyle is in New York City this week attending the Lions Club National Convention during his vacation.



Y-12 Photos By Vince Moore

PRINCIPALS IN THE FRAZIER-MURPHY WEDDING party attending the reception that followed the marriage July 17 of Miss Evelyn Murphy, Dept. B12C, and Carl William Frazier, Dept. H12L, are shown above. Left to right are Sam Culbertson, Kingsport, best man, Mr. and Mrs. Frazier and Miss Ethel Murphy, sister of the bride who was maid of honor.

Hospital List

The following Y-12 employees were patients at the Oak Ridge Hospital last week: Charles S. Harrill, Dept. A15N; Harold W. Babb, Dept. A16N; Ordean Upchurch, Dept. B13C; Joseph P. Gill, Dept. A12W; Clyde H. Drummond, Dept. A16N; Charles A. Gregory, Dept. A15N; Percy C. LaRue, Dept. A16N; Dr. Paul D. Scofield, Dept. A12D; Virgil O. Haynes, Dept. H12E; Frank J. Lambert, Dept. H12L.



One birth was reported at the Oak Ridge Hospital last week. Mr. and Mrs. James D. Bowers became parents of a daughter on July 16.

Vets May Renew NSLI For Extra Five Years

The Veterans Administration has announced that former service men carrying National Service Life Insurance may renew their policies for an additional five years.

Term policies taken out before January 1, 1946, are for eight-year periods and from date of issue. Policies taken out after that date are for five-year periods. Those who renew term policies will have to pay a slightly higher rate.

W. H. Acton, Dept. B12A, is on a week vacation with his family. They went to Chattanooga, so Acton could get in some painting. (Not artistic, house painting).

Oral Burnett, Dept. A12N, is vacationing this week. . . . W. T. McNamara is visiting his son who is in the hospital in New York. . . . Polly Morris is recuperating from an appendectomy. We wish her a speedy recovery and quick return to work. . . . G. B. Lockhart spent a week in North Carolina and Virginia with his family.

Lula B. Justice, Dept. A12T, is happy to have her daughter, Reba, Dept. H12D, at home. We wish Reba a speedy recovery and quick return to work.

Arnold Higdon, a former employee of the Safety Department, while on a business trip to this section spent a week in Oak Ridge visiting old friends and acquaintances.

H. B. Craft and C. L. Freeman, both of Dept. A15N, have returned from vacations. The department wishes a speedy recovery to C. A. Gregory, who is on the sick list. . . . C. L. Taylor motored to Gatlinburg with his family over a recent week end. Accompanying them home was their daughter Anita Lee, who has been attending a Methodist camp. . . . C. S. Harrill is on the sick list.

M. L. Winton, Dept. H12E, with his family, mother-in-law and J. E. Lain, Assistant Fire Chief, motored to Barbourville, Ky., over the week end. Davis and Lain spent their spare time fishing.

Additions To Y-12 Technical Library

SOCIAL SCIENCE

HA 33—Smith and Duncan, "Elementary Statistics and Applications," N. Y., McGraw-Hill, 1944. 720 pages.

HD 7273—United States Department of Labor, "Suggested Standards for Industrial Safeguards," Special Bulletin No. 7. Wash., Govt. Printing Office, 1942.

HJ 10.B8—House of Representatives, "First Deficiency Appropriation Bill for 1948," Wash., Govt. Printing Office, 1948.

Pam. Case—United States Atomic Energy Commission, "Background Material on Activity in First Year of Distribution of Pile-Produced Radioisotopes," Wash., Govt. Printing Office, January, 1948.

Pam. Case—United States Atomic Energy Joint Committee, "Labor Policy in Atomic Energy Plants." Hearing before the Joint Committee on Atomic Energy Congress of the United States. Part I. Wash., Govt. Printing Office, 1948.

SCIENCE

Q 127—Suits, Harrison and Jordan, "Applied Physics—Electronics, Optics and Metallurgy," Boston, Little, Brown and Co., 1948. 456 pages.

MATHEMATICS

QA 55—Bruhns, Dr., "A New Manual of Logarithms to Seven Places of Decimals," 18th Stereotype edition. N. Y., Van Nostrand, 1941. 610 pages.

QA 261—Artin, Emil, "Galois Theory," Second edition. Indiana, Notre Dame, 1948. 82 pages.

QA 263—Halmos, Paul R., "Finite Dimensional Vector Spaces," Princeton, University Press, 1948. 196 pages.

Periodical—"Mathematical Review," beginning with April, 1948 issue.

PHYSICS

QC 182—Gregg, S. J., "The Absorption of Gases by Solids," N. Y., Chemical Publishing Co., 1934. 120 pages.

QC 544—Bigenet, Charles, "Les Cathodes Chaudes, Theorie et Pratique," Paris, 1947. 183 pages.

CHEMISTRY

QD 151—Emeleus and Anderson, "Modern Aspects of Inorganic Chemistry," N. Y., Van Nostrand, 1948. 536 pages.

QD 251—Karrer, Paul, "Organic Chemistry," Third English edition. N. Y., Elsevier Publishers, 1947. 957 pages.

TECHNOLOGY

TH 7015 Ref.—Stock, Clifford, "Heating and Ventilating Engineering Databook," First edition. N. Y., Industrial Press, 1948.

TR 750—Eastman Kodak Co., "Radiography in Modern Industry," N. Y., Eastman Kodak, 1947. 122 pages.

TT 211—American Welding Society, "Welding Handbook," N. Y., American Welding Society, 1942. 1593 pages.

Periodical—"Photographic Journal," beginning with Vol. 88 B March-April, 1948, issue.

Firemen, Bums Leading Plant Softball Loops

The Fire Department and the Bums have taken command in the Carbide and Carbon plant leagues respectively, both clubs being in first place as of July 22.

The Bird Cagers topped the Guards, with the absence of "Lefty" Christopher, 12 to 2, Thursday night. Ed Sise allowed the Guardsmen only two hits and the losers started Remine on the mound with Cantrell doing the catching.

The All Stars came to life in the fifth inning in their tussle with Maintenance but were stopped short in the seventh and lost, 9 to 6, on July 22.

Firemen Tear Down Bldg. 9212

The Firemen tore down Bldg. 9212 on July 22 with a 10 to 3 tally. Bill Davis was the Fire Department's heavy hitter with two singles and a triple.

In the Carbon League on last Wednesday night the Bums walloped the Crew Chiefs by a crushing tally of 17 to 3. The Crew Chiefs were holding their own until the seventh when those Bums flashed 10 runners across.

One-91 exhibited the same one-inning power-drive in their game with the Dreamers when they brought in nine runners in the second to finally take the "Noddors" 15 to 9.

Hitting was held down to a new low for the losers in three games July 20 at Administration Field. Maintenance stopped the Bird Cagers with four hits to win 7 to 4, the Fire Department halted the Wolves on two hits to win 17 to 0 and the Guards allowed only one hit to top the Isotopes 21 to 0.

Maintenance Rallies To Win

The Bird Cagers were leading Maintenance up to the fourth inning when the victors brought five players across. Elmer Green hurled for Maintenance and he was relieved by Darby in the fourth. Ed Sise tossed for the Cagers, fanning five and walking three. Price powered a homer for the Cagers in the second inning with one man on.

The Firemen blanked the howling Wolves with Lowry and Carriker accounting for the lone singles off of Johnny Webb, the winning hurler. Emmett Moore, Fire Department catcher, chalked up two singles, a double and a triple in four times at bat.

"Lefty" Christopher whiffed 14 Isotope batters as the Guards skunked the losers 21 to 0. Caldwell connected for the Isotopes lone single.

Calutrons Are Beaten

Building 9212 handed the Calutrons a 14 to 10 defeat July 19 at Jefferson Junior High School Field. Murray, centerfielder for the Cals, chalked up four hits in four times at bat. Campbell was the heavy hitter for Bldg. 9212 with a walk, a single and two doubles in five trips to the plate.

On July 19 the Bums crushed the Dreamers 22 to 5 with Walton whiffing seven Dreamers. "Duke" Dugay in six trips to the plate collected two singles, two doubles, a walk and got on first base on an error.

The Crew Chiefs out to save face for their lopsided loss in their first game against the Bums, made a commendable attempt and almost walked away from One-91 on July 19 until Schultz powered a home run in the last of the seventh with the bases loaded giving One-91 a 10 to 9 win.

The Wolves thrashed the Calutrons 11 to 1 July 16 with Gordon allowing only four hits. Lowry made it four for four on the batting ticket with three singles and a double. Allstun, first man up for the Wolves, knocked a home run.

The Isotopes edged Maintenance 10 to 9 on July 16 in spite of the 11 walks given up by Killian and Burnett, hurling for the winners. Frazier was the big stick for the Isotopes with two doubles and a single in four trips. He is No. 4 in the Big Ten hitters in the plant leagues.



RICHARD REECE, SHOWN AT THE LEFT SITTING proudly in his white racer, points to the spot where he hopes to put the winning trophy for the Chattanooga Soap Box Derby. Richard's family pictured with him from left to right are John Reece, Dept.



H12D, Mrs. Reece and brother George who will be on the spot with rousing support. "On your mark! Get Set!" Richard Reece in his "Ridgerunner" and brother George prepare for a test run before the big race on July 28-29 in Chattanooga.

Cardinals Meet Stores And R-A In Next Tilts

The Y-12 Cardinals have two games on tap for this week, meeting the Community Stores baseball club tomorrow night and Roane-Anderson on Sunday. Both games will start at 8 o'clock at Oakwood Park.

The Cards were scheduled to engage the VFW last night.

Last Thursday night the Cards used three pitchers, Kapplemann, Hawkins and Gardner, in a futile effort to stop the onslaught of the K-25 club that mauled the Y-12 outfit 13 to 3. Jack Penn got two of Y-12's five hits in four trips to the plate.

Plant Softball Schedule, Standings, Results

THIS WEEK'S SCHEDULE
Tuesday, July 27 — Administration Field, All Stars vs. Guards at 5:30 p.m.; Isotopes vs. Bldg. 9212 at 7 p.m.; Bird Cagers vs. Wolves at 8:30 p.m.
Wednesday, July 28 — Jefferson Junior High School Field, One-91 vs. Dreamers at 6 p.m.; Bums vs. Crew Chiefs at 6 p.m.
Thursday, July 29 — Administration Field, Guards vs. Maintenance at 5:30 p.m.; Calutrons vs. Isotopes at 7 p.m.; Wolves vs. All Stars at 8:30 p.m.
Friday, July 30 — Administration Field, Bldg. 9212 vs. Bird Cagers at 5:30 p.m.; Dreamers vs. Bums at 7 p.m.; One-91 vs. Crew Chiefs at 8:30 p.m.
Monday, August 2 — Jefferson Junior High School Field, Fire Department vs. Isotopes at 6 p.m.; Maintenance vs. Wolves at 6 p.m.

RESULTS THROUGH JULY 22										
CARBIDE LEAGUE										
Team							R	H	E	
Bird Cagers	1	1	2	3	5	0	x	12	10	1
Guards	0	1	1	0	0	0	0	2	2	7
Fire Dept.	4	1	0	2	3	0	0	10	11	0
Bldg. 9212	1	0	1	0	0	1	0	3	6	5
Maintenance	2	0	3	0	1	0	3	9	11	3
All Stars	0	0	0	2	2	2	2	6	9	3
Bldg. 9212	1	0	7	4	0	2	x	14	14	1
Calutrons	1	3	2	0	1	2	1	10	14	1
Isotopes	1	3	0	2	4	0	0	10	9	1
Maintenance	2	1	0	1	0	2	3	9	6	1
Bird Cagers	0	0	0	5	2	0	0	7	7	2
Fire Dept.	0	3	0	0	0	0	0	3	4	0
Wolves	0	0	5	8	4	0	x	17	14	0
Guards	4	5	3	0	0	9	x	21	15	6
Isotopes	0	0	0	0	0	0	0	0	1	0
Wolves	1	2	3	4	0	1	x	11	15	1
Calutrons	0	0	1	0	0	0	0	1	4	3

CARBON LEAGUE										
Team							R	H	E	
One-91	4	0	1	0	0	1	4	10	10	5
Crew Chiefs	1	4	0	0	3	0	1	9	8	4
Bums	2	7	3	0	0	2	8	22	21	4
Dreamers	1	0	0	2	2	0	0	5	3	4
Bums	1	0	2	2	2	10	17	16	1	1
Crew Chiefs	0	2	1	0	0	0	0	3	3	4
One-91	2	9	0	3	1	0	x	15	12	5
Dreamers	2	1	4	0	0	1	1	9	12	8

STANDINGS THROUGH JULY 22					
Carbide League					
Team	W	L	Team	W	L
Fire Dept.	4 <td>0</td> <td>Bird Cagers</td> <td>1</td> <td>2</td>	0	Bird Cagers	1	2
Maintenance	4	1	Wolves	1	2
Guards	3	1	Calutrons	1	4
Isotopes	2	1	All Stars	0	4
Bldg. 9212	1	2			
Carbon League					
Team	W	L	Team	W	L
Bums	3	0	Dreamers	0	2
One-91	2	0	Crew Chiefs	0	3

"Oh, Mr. Blunt. This is so sudden."
"I know, but I thought you could stand surprise better than suspense."

S P O R T S

Play Increases In Y-12 Ladder Golf Tourney Over Week End

Play in the Y-12 ladder golf tournament was expected to get into high gear over the past week end as a number of challenges had been hurled and accepted among the 37 mashie-wielders on the list of tournament competitors.

Up until last Thursday 18 matches had been played by ladder contestants with a number of changes made in the standings.

Arnold Tiller, of the Y-12 Recreation Office, led in the won and lost standings among the competitors as of July 22 with three victories without a defeat. Dunlap was close behind with two wins and no losses.

Players with one victory and no losses include Wanamaker, Koontz, Lavers and Orrison. Holtzknicht had a two won and one lost standing while breaking even with one win and one loss were Barker, Reese, Ludwig, Reynolds, Martin and Ratjen. Competitors with one loss and no wins include Larson, Johnson, Hubbard, Harris, Duncan, Case and Buckminster. Bowles had lost both of his starts while Scott had won one and lost two matches.

Players may begin qualifying rounds shortly after August 1, when the permanent greens on the first nine holes of the course will be completed. The deadline for posting qualifying scores will be September 6, after which the flights will be arranged. After the finals in the tournament are staged September 18, a Calcutta will be held on September 19.

At a recent meeting of the club membership dues for all members were adjusted so that corporate and charter members now pay the same fees. The club now is accepting new members and any Y-12 employees wishing to join may obtain application blanks at the Recreation Office, North Portal.

Y-12 Horseshoe Ladder Tournament In Progress

The horseshoe ladder tournament began this week for Y-12ers. The following rules have been outlined by the Recreation Department.

1. Match games will consist of one game of 50 points.
2. Challenger may challenge two places above.
3. Player must play at least two matches every two weeks.
4. New players will be added to the bottom of the ladder.

An award will be presented to the top player on the ladder as of September 6. Y-12ers interested in entering the tournament are requested to call Arnold Tiller at 7-8252. Players at the top of the ladder will represent Y-12 in the City League. Fred Kapplemann has been chosen as captain of the Y-12 team.

The present ladder standing for Y-12 follows: 1. Hawk, 2. Lewis, 3. Kapplemann, 4. Quinn, 5. Moore, 6. Watts, 7. Olson, 8. Beckett, 9. Fields.

Girl Customer: "Does this lipstick come off easily?"
Cosmetics Clerk: "Not if you put up a fight!"

Y-12, Fairchild Tied For Softie League Honors

The Y-12 Robusters wound up the first half of the City Softball Recreation League in a two-way tie with Fairchild for first place. The play-off between these two teams will be scheduled by the Oak Ridge Recreation Department next week.

The second half of the season began this week and the Robusters engage Firestone tomorrow at 6:15 p. m. at Oakwood Park and then meet Grants Quickies Friday at 8:30 p. m. at Pinewood.

Sise Wins Another

The Y-12 varsity softball team topped the lads from Grant's Quick Lunch Stand 7 to 1 at Oakwood Park on July 19.

The strong Sevierville softball teams, both men and women, will play the Y-12 outfits here Saturday night, July 31, in return engagements for the visit paid by the Robusters and Robins there. The double-header will be played at Pinewood Park, starting at 7:30 o'clock.

Y-12 Divides At Sevierville

The Robusters met the Sevierville VFW club there on July 16, licking the local team 7 to 6. The lead shifted back and forth every other inning and at the end of the sixth Sevierville was out in front 6 to 5. Then the Robusters scored two runs and held the lead to win the contest.

Jack McLendon had a tooth chipped when tagging a VFW runner trying to cross home plate. Sise was the winning moundsman for Y-12.

Several Hundred See Game

The Robins made the same trip along with the Robusters but lost their game to the Sevierville girl's softball outfit 3 to 2. Several hundred spectators turned out for the game and the Y-12 players were given a warm reception by the Sevierville townspeople.

The Robins forfeited their game on July 19 to the K-25 lassies when only seven players turned out. They were scheduled to meet the Roane-Anderson girls last Friday night and K-25 last night.

Y-12 Men Fixing Details Of Norris Boat Race Card

W. C. Tunnell, Dept. A13W, is chairman of the Oak Ridge Lions Club committee in charge of the national speed boat races to be staged on Norris Lake, Sunday afternoon, August 22. H. E. Buckminster, also of Dept. A13W, and Myron Fields, Dept. H12E, are sub-chairmen of the group.

Many nationally known motorboat racers will appear in the Norris events and an advance sale of tickets will be made at a 15 per cent discount. The tickets may be obtained from Lions Club members.

New York became the 11th state to ratify the Constitution on July 26, 1788.

Netmen Of Y-12 Meet K-25 Tonight; R-A On Thursday

The Y-12 netmen are in better shape this week to win over the K-25 tennis team tonight and AEC on Thursday after winning their match over Roane-Anderson last Thursday night. Both matches this week will be played at Jefferson Courts at 5:30 p.m.

In the Y-12 - Roane-Anderson match, Wallis defeated White 4-6; 7-5; 6-2 for Y-12 and the other singles won by Y-12 was Blackshear over Scofield 6-4; 6-1.

Roane-Anderson took two of the singles with Whittaker topping Hurst 6-2; 6-1, and Levitt winning over Byrd 4-6; 6-2; 6-3. Y-12 won one doubles match by default and the remaining doubles match was postponed.

In the play-offs of postponed matches, Silverman of Y-12 topped Hurst of ORNL 6-4; 6-4. Peterson of ORNL won by default over Y-12's Koontz. Harrison and Allen of Y-12 won by default in another postponed play-off against Roane-Anderson.

Y-12 Horseshoers Beat AEC Tossers

Fred Kapplemann and his Y-12 horseshoe hurlers walked away from the AEC tossers last Wednesday at Grove Courts, winning four matches to blank the losers.

Hawk and Kapplemann gained the highest honors for the evening by pitching 40 and 33 per cent ringers respectively for two games. Winners of two games for Y-12 were Lewis, Kapplemann, Hawk, Quinn, Faulkner, Watts and Gregg. Fields and Forbes won one game each.

CARBIDE AND CARBON
CHEMICALS CORPORATION

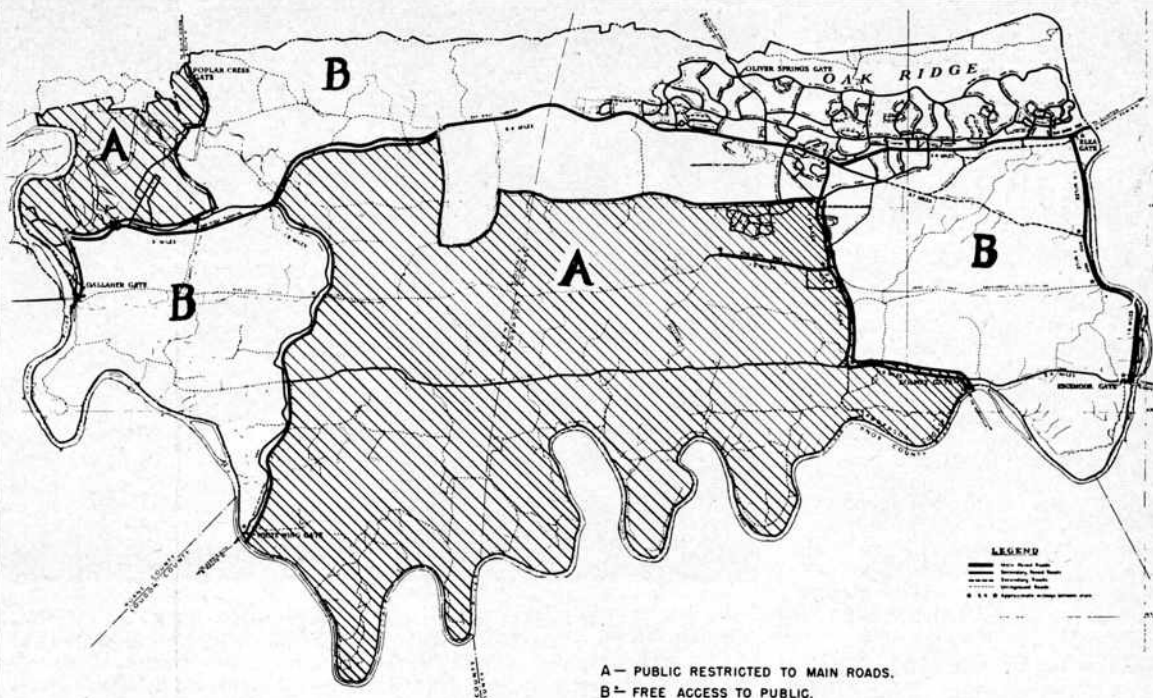
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MIT Graduate School Is Open At K-25

The practice engineering school of the Massachusetts Institute of Technology began sessions yesterday at the K-25 plant of Carbide and Carbon Chemicals Corp. under direction of Prof. William A. Reed. Nine graduate students of M.I.T. are enrolled in the classes, which will continue until December.

Approximately 30 students are expected at the winter term of the practice school, which probably will start sessions early next year.

Assistant director of the school is Raymond F. Baddour, a M.I.T. chemical engineer and graduate of Notre Dame University. He is a native of Laurinberg, N. C.

The objective of the school is to offer practical experience in the engineering aspect of atomic energy to students with different technical background. The school has been set up in a building of its own at K-25 with lecture room, drafting room, small technical library, laboratory and office.

'Oh, My Aching Back' Feeling From Lifting Is Avoidable

(Continued From Page 1)

cles instead of leg or arm muscles puts a strain on the former that can result in painful aftermaths. Leg Muscles Are Strong

The legs are constructed differently. They can be bent and yet the muscles have sufficient strength to straighten the legs out under heavy loads. If the legs will not lift the load it is well to conclude that the load is too heavy.

All employees in Y-12 whose duties require lifting of heavy objects are urged not to overestimate their strength and to call for assistance if necessary when hand lifting is required. Whenever possible, the use of power lifting equipment is urged on such heavy objects.

However, if anything "gives way" in the body as a result of lifting, the employee should immediately report it to his direct supervisor who will send the employee at once to the Y-12 Dispensary for examination and treatment if it is found necessary. Prompt attention to such strains frequently prevents unnecessary pain and inconvenience that might result if the injury is not given prompt treatment.

Teachers Needed For AEP Classes

Y-12ers interested in teaching at the Oak Ridge Adult Education Program school in the fall, for evening classes, are asked to call A. C. Keller, director of the program at 5-2889 and check their qualifications.

The AEP office will mail to every resident of Oak Ridge its 1948-49 catalog on September 1, listing all classes and a description of each to be offered on the program. Certificate courses will be offered as well as college credit courses.

Open Areas For Public Shown By AEC

In response to many requests, the Atomic Energy Commission has designated certain portions of the Oak Ridge area open to residents who wish to pick wild berries or hold picnics. To make clear these areas, the AEC has issued the map, published above, that shows the restricted parts of the Oak Ridge area and those open to the public.

The portions of the map that are shaded are restricted to official business and legitimate travel on the main roads. The unshaded areas are open to Oak Ridge residents.

The AEC calls attention of all Oak Ridge residents that within the open area there are tracts licensed for agricultural operations by private parties. Cooperation with such licensees in respecting posting and fences is urged by the AEC.

Women's Tennis Team Of Y-12 Are Tied For Second Place

The Y-12 racqueteers are tied with the K-25 lassies for second place in the city women's league standing with seven wins against 11 losses. They were scheduled to meet the Oak Ridge National Laboratories girls last night and on August 2 they play K-25.

The K-25 girls beat the Y-12ers last Thursday night 4 to 2. K-25 took both doubles and split the four singles matches.

In the singles Ann Hart won over Ann Gwaltney of K-25, 6-0; 6-0. Y-12's Elizabeth Patrick topped Ruth Little 6-1; 6-1. The other singles matches taken by K-25 were Elizabeth Gurney over Virginia Spivey 9-7; 2-6; 6-3 and Ann Stockton over Helen Burkhalter 6-4; 6-4.

Y-12 lost both doubles with Jolly and Shaffner beating Thompson and Brown 7-5; 6-2 and Wright and Moore topping Hale and Morgan 8-6; 6-2.

New Rescue Planes For AF

The old faithful twin-engine Catalina flying boat will be replaced by Gruman SA-16A, search and amphibious planes, according to an Air Force report.

The new high-speed amphibious plane has a high wing, powered by two Wright engines and carrying a crew of three. It has a rated cruising speed of 225 miles per hour and a maximum speed of 275 miles per hour.

The new air-sea rescue plane will be a definite improvement over the 100 mile-per-hour Catalina.

Hawaii was annexed to the United States by joint resolution of Congress on July 7, 1898.

Refining Again Tops Attendance Table

(Continued From Page 1)

League reported perfect attendance. They were Dept. M13P, Product Processing; Dept. A13S, Tool; Dept. A12L, Employment Dept. A19N, Laundry; Dept. A12D, Dispensary; Dept. A12T, Automotive Repair; and Dept. B13C, Material Control.

The biggest drop in the Minor League was made by Dept. A12W, Engineering, from its first place tie for the preceding week to 11th place for this period.

The complete record of Y-12 absenteeism for the week ending July 18 by departments follows:

MAJOR LEAGUE More than 50 Employees			
Dept.	Percentage Absent	7-18-48	7-11-48
B12H	0.7	1	1
M12P	1.1	2	11
H12L	1.2	3	4
A13N	1.6	4	5
A14N	1.8	5	7
A12M	2.0	6	9
A12G	2.15	7	3
H12E	2.19	8	2
B13L	2.6	9	13
A16N	3.1	10	14
A17N	3.2	11	8
A12S	3.5	12	15
B12C	4.8	13	10
B12L	6.3	14	12
H12D	8.4	15	16

Group absentee percentage was 2.8 per cent, .1 per cent higher than the preceding week.

MINOR LEAGUE 15-49 Employees			
Dept.	Percentage Absent	7-18-48	7-11-48
M13P	0.0	1	1
A13S	0.0	1	1
A12L	0.0	1	1
A19N	0.0	1	1
A12D	0.0	1	1
A12T	0.0	1	4
B13C	0.0	1	5
B12A	0.6	2	1
M12S	0.7	3	6
A14J	0.8	4	-
A15N	1.0	5	1
A12J	1.3	6	1
A12R	1.81	7	1
A12P	1.81	7	3
A13W	2.2	8	1
A13T	3.2	9	2
A12N	4.5	10	7
A12W	5.9	11	1
A12A	6.4	12	8

Group absentee percentage was two per cent, one per cent higher than the preceding week.

The plant average for the week ending July 18, was 2.6 per cent, .3 per cent higher than the preceding week.

DAV Will Install Officers Wednesday

Horace Rogers, past commander of the Disabled American Veterans, will be in charge of installation ceremonies when officers of the recently organized Oak Ridge post will take their posts at 7:30 p.m., Wednesday, July 28. The ceremonies will be held at the Veterans of Foreign Wars quarters in Gary Hall.

Thomas W. Keany, of Y-12, is a member of the executive board of the new DAV post. W. R. Morgan is commander, H. V. Carroll senior vice commander and Boyd Thompson junior vice commander.

One girl to another: "Of course I had to tell her she looked like a million—I meant every year of it."

It pays to start at the bottom and wake up.

X-RAY Reveals Why....



Lift and Carry CORRECTLY!

THIS Y-12 PHOTOPOSTER NOW ON DISPLAY THROUGHOUT the plant shows the proper position of the body in lifting and carrying any object. To avoid strain on the back the spine should be as erect as possible with the leg muscles doing the work. Posing these pictures are Audrey Braden, Dept. B12H, at top, and Georgia Radin, Dept. A12S, at bottom.

Pinchers Driver Gets Pinched

Everett Clyde Miller is a specialist in his own field. According to a recent news dispatch from Los Angeles, Miller was arrested for speeding in a car without a steering wheel!

He was steering his car at 50 miles per hour with a pair of pliers! Miller was fined \$15 for driving an unsafe vehicle.

BIG PIGGY BANK

Henry Shibata, Denver cafe operator, told the judge that he kept slot machines not for gambling but to put his money in for saving when arrested by Denver police. The skeptical judge fined him for possessing illegal slot machines.

Maybe It Should Happen In USA

Someone finally got fed up with the long hairs and action was taken by the Siamese Ministry of Education in Bangkok when it recently ordered that no school boy may wear his hair longer than one centimeter.

This action stemmed over the shaggy styles used by the male students to imitate their matinee idols. The ministry is considering but has not yet adopted a similar ban on waves and upswept styles for school girls.

The first railroad mail car was operated between St. Joseph and Hannibal, Mo., on July 28, 1862.